UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,565	07/02/2001	Yong-Woon Kim	300055.505	2722

500 7590 09/20/2004		EXAMINER
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ART UNIT	PAPER NUMBER
2154	

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DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _02 July 2001_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-14_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-14_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☒ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-14 are presented for examination.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claim 1 recites the limitation "the prefix information" in line 8. There is insufficient antecedent basis for these limitations in the claim.

4.   Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim recites the limitation "special character" in line 1. The applicant fails to disclose what this pertains to in the specification.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1 – 4 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Choi et al (U.S. Patent Publication **No. 2002/0136387**).

7.   As per claim 1, Choi et al teach a method of automatically generating an IPv6 address

using an E.164 telephone number, comprising:

        a first step of reading in the telephone number of a telephone terminal **(abstract and**

paragraph [0046]);

        a second step of converting respective decimal numbers constituting the telephone

number of the telephone terminal into a 4-bit binary format **(paragraph [0037] and Figure 1);**

        a third step of padding a specific bit to the bit sequence converted in said second step to

produce an interface ID having a pre-established size **(paragraphs [0004-0005 and 00037] and**

Figure 3); and

        a fourth step of combining said interface ID and the prefix information to produce an IP

address **(paragraphs [0045-00047]).**

8.   As per claim 2, Choi et al teach reading in the telephone number of the telephone

terminal in accordance with E.164 format **(abstract).**

9.   As per claim 3, Choi et al teach said telephone number of said telephone terminal

comprises a country identification number, a local identification number and a subscriber

telephone number **(Figure 1, 5, 7, 8 and paragraph [0023]).**

10.   As per claim 4, Choi et al teach combing the prefix information of 64 bit and the interface

ID of 64 bit created using the E.164 telephone number to thereby produce an IPv6 unicast

address **(paragraph [0013] and Figures 1 and 3).**

11.   As per claim 6, it contains similar limitations as claim 1, therefore are rejected under the

same rationale.

12.   Claims 7 – 8 and 12 - 14 are rejected under 35 U.S.C. 102(b) as being anticipated by

Anderson et al (U.S. Patent No. **5,974,453**).

13.   As per claim 7, Anderson et al teach a method of looking up an IP address corresponding

to a telephone number name address, comprising:

        a first step of receiving a request for an IP address of said telephone number name

address in a local domain DNS server **(column 2, lines 25 – 50)**;

        a second step of receiving a server address which points to a corresponding country DNS

server using a country identification number of said telephone number name address in a client

node **(column 6, lines 12 – 26 and 55-66)**;

        a third step of accessing a corresponding country DNS server recognized in said second

step to recognize an address of a server for managing a corresponding local area DNS, using a

local identification number of said telephone number name address **(column 5, lines 33 – 67)**;

and

        a fourth step of accessing a corresponding local area DNS server recognized in said third

step to recognize an IP address of a corresponding subscriber's telephone number, using a

subscriber's telephone number of said telephone number name address **(column 4, lines 27 – 40,**

column 2, lines 25 – 50 and abstract)..

14.   As per claim 8, Anderson et al teach recognizing an address of a server for managing a

corresponding prefix DNS using a prefix identification number of said telephone number name

address by accessing the corresponding local area DNS server recognized in said third step, and

recognizes an IP address of said subscriber's telephone number by accessing said corresponding

prefix DNS server **(column 4, lines 27 – 40, column 2, lines 25 – 50 and abstract)**.

15.   As per claim 12, the claim contains similar limitations as claim 7 above, therefore it is

rejected under the same rationale.

16.   As per claim 13, Anderson et al teach a DNS server system for resolving an IP address

for a telephone number name address, comprising:

a root DNS server for managing country DNS server addresses corresponding to country

identification numbers of said telephone number name address **(column 3, lines 49 –62)**;

a country DNS server for managing local area DNS server addresses corresponding to

local identification numbers of said telephone number name address **(column 4, lines 10 – 20,**

Figure 1, and column 5, lines 10 - 46);

a local domain DNS server for managing prefix DNS server addresses or IP addresses

corresponding to prefix identification numbers of said telephone number name address **(column**

4, lines 10-20 and Figure 1); and

a subject DNS server for looking up an IP address corresponding to said telephone

number name address to provide an address resolver in a client node with the IP address, through

said root DNS server, a country DNS server, a local area DNS server and a local domain DNS

server **(column 3, lines 10 – 40 and column 2, lines 25 –50)**.

17.   As per claim 14, Anderson et al teach a prefix DNS server for managing IP addresses

corresponding to subscriber's telephone numbers of said telephone number name address

(column 3, lines 10 – 40 and column 5, lines 47 – 67).

Claim Rejections - 35 USC § 103

18.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

19.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al (U.S.

Patent Publication **No. 2002/0136387**) as applied to claim 1 above, and further in view of Childs

et al (U.S. Patent **No. 5,623,545**).

20.   As per claim 5, Choi et al teach a method of automatically generating an IPv6 address

using an E.164 telephone number**(abstract)** and the use of an interface ID **(Figure 3)**.

21.   Choi et al fail to teach a method wherein said third step pads 0 or 1 bit to upper or lower

bit digits of said binary bit sequence to produce the of 64 bit.

22.   However, Childs et al teach a method of padding a 1 and as many zeros as necessary to

become a 64 bit **(column 1, lines 15-27)**. It would have been obvious to one of the ordinary skill

in the art at the time of the applicants invention to combine the teachings of Choi et al and Childs

et al because Childs et al's use of padding 1s or 0's to bit sequences in Choi et al's method would

allow for bit sequences from telephone numbers that have decimal numbers below the required

amount, after binary conversion, to fulfill the required 64 bit format by adding 1's or 0's.

23.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al

(U.S. Patent No. **5,974,453**) as applied to claim 7 above, and further in view of Choi et al (U.S.

Patent Publication No. **2002/0136387**).

24.   As per claim 9, Anderson et al fail to teach adding a country identification number to the

telephone name number address, if said telephone number name address includes only a local

identification number and a subscriber's telephone number, and then performing said second

step.

25.   However, Choi et al teach that country numbers maybe added to a telephone number that

contains subscriber ID and area code or zip code **(paragraph [0042 - 0046] and Figure 1 and**

7). It would have been obvious to one of the ordinary skill in the art at the time of the applicant's

invention to combine the teachings of Anderson et al and Choi et al because Choi et al's use of

adding a country code to a telephone number in Anderson et al's method would allow for

appropriate routing and accessing of a country DNS server corresponding to a telephone number.

26.   Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Anderson et al (U.S. Patent **No. 5,974,453**) as applied to claim 7 above, and further in view of

Voit et al (U.S. Patent No. **6,157,648**).

27.   As per claim 10, Anderson et al fail to teach a method, wherein said telephone number

name address is a telephone number of E.164 format.

28.   However, Voit et al teach a method wherein an E.164 address (telephone number) is

provided by a client and the directory returns an IP address **(column 15, lines 47 –54)**. It would

have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to

combine the teachings of Anderson et al and Voit et al because Voit et al's use of an E.164

format telephone number in Anderson et al's method would provide a 15 decimal digits long

address and would include a country code, area or city code, and a local number and would also

provide appropriate routing to a DNS server.

29.   As per claim 11, Anderson et al teach a special character at the front of a telephone

number of said E.164 format **(column 3, lines 29 –40 and column 5, lines 48 –67)**.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

    a.   Kelly (U.S. Patent No. 6,347,085)

    b.   Melen et al (U.S. Patent No. 5,956,391)

    c.   Voit et al (U.S. Patent No.6,295,292)

    d.   Kobayashi (U.S. Patent Publication No. 2001/0005366)

    e.   Borella et al (U.S. Patent No. 6,731,642).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey M Refai whose telephone number is (703) 605-4361. The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramsey M Refai
Examiner
Art Unit 2154

RMR
September 15, 2004

N. Elttady